

REMARKS

The Office Action, mailed November 21, 2006, considered and rejected claims 1–34. Claims 12, 23–25 and 23–33 were rejected under 35 U.S.C. § 101 as being purportedly drawn to non-statutory subject matter. Claims 26 and 27 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Claims 1, 4–8, 10 and 11 were rejected under 35 U.S.C. § 102(a) as being anticipated by Zan Ouyang et al., *Cluster-Based Delta Compression of a Collection of Files*, WISE '02 (Aug. 2002) (hereinafter Ouyang). Claims 12, 24–28 and 34 were rejected under 35 U.S.C. § 103(a) as being obvious in view of Ouyang. Claims 2, 29, 32 and 33 were rejected under 35 U.S.C. § 103(a) as being obvious in view of Ouyang and further in view of Forbes, U.S. Patent No. 6,381,742 (filed June 19, 1998). Claims 3 and 30 were rejected under 35 U.S.C. § 103(a) as being obvious in view of Ouyang and further in view of Henry, U.S. Patent No. 6,131,192 (filed June 18, 1998). Claim 9 was rejected under 35 U.S.C. § 103(a) as being obvious in view of Ouyang and further in view of MARK ALLEN WEISS, *DATA STRUCTURES & ALGORITHM ANALYSIS IN C++* (2d ed., 1999) (hereinafter Weiss). Claims 13–15 and 21–23 were rejected under 35 U.S.C. § 103(a) as being obvious in view of Ouyang and further in view of Sliger, U.S. Patent No. 6,216,175 (filed June 8, 1998). Claims 16 and 17 were rejected under 35 U.S.C. § 103(a) as being obvious in view of Ouyang, and further in view of Sliger and Forbes. Claims 18–20 were rejected under 35 U.S.C. § 103(a) as being obvious in view of Ouyang and further in view of Sliger and Henry. Claim 31 was rejected under 35 U.S.C. § 103(a) as being obvious in view of Ouyang and further in view of Henry and Forbes.¹

By this response, claims 1, 13, 23–24, 26–27, and 34 have been amended, such that claims 1–34 remain pending. Claims 1, 12, 13, 23, 24, and 34 are the independent claims which remain at issue. Support for the amendments may be found throughout the Specification, including the disclosure found in ¶¶ 13–14 and 39–51.²

As reflected in the claims, the present invention is generally directed towards embodiments for creating and using self-contained packages where the package size is reduced

¹ Although the prior art status of the cited art is not being challenged at this time, Applicants reserve the right to challenge the prior art status of the cited art at any appropriate time, should it arise. Accordingly, any arguments and amendments made herein should not be construed as acquiescing to any prior art status of the cited art.

² However, the present invention and each of the claims is supported by the entirety of the Specification. No portion of the Specification should be thought to support any element of any claim absent consideration of the entirety of the Specification.

via delta compression and a build mechanism that examines files to be used in the creation of the packages.

Claim 1 recites, for instance, in combination with all the elements of the claim, a method that includes receiving information concerning a number of source files, generating a list of prospective delta inputs, including an entry for each unique source file and then synthesizing a base file that is based upon package size. A delta is also generated from a base file and a source file prior to packaging the base and delta files in a self-contained package.

Claim 13 recites a method for receiving a package formulated according to a methodology similar to that recited in claim 1.

Claim 24 is directed to a data structure recorded on a computer-readable medium which includes data comprising a base file which was synthesized based upon package size and data comprising a delta file which is configured to synthesize a target file when applied to the base file.

Claims 12 and 23 are directed to computer program products corresponding to the methods recited in claims 1 and 12, respectively, and claim 34 is directed to a system comprising means for performing a method similar to that recited in claim 1.

The Examiner rejected claims 12, 23–25, and 29–33 under 35 U.S.C. § 101 as being directed toward non-statutory subject matter.³ In particular, independent claims 12 and 23 were rejected as reciting “a computer readable medium” which included a carrier wave. Claims 12 and 23 have now been amended to read “computer-readable storage medium.”⁴ Claims 24–25 and 29–33 were rejected under 35 U.S.C. § 101 because those claims “refer to a computer-readable medium having only stored thereon a data structure, which is nonfunctional descriptive material.”⁵ It should be noted, however, that “‘functional descriptive material’ consists of data structures and computer programs which impart functionality when employed as a computer

³ Office Communication p. 2 (Nov. 21, 2006).

⁴ It should be noted, however, that Applicants respectfully disagree that data signals sent over wired and wireless media do not meet the “useful, concrete, and tangible result” test set forth in *In re Alappat*, 33 F.3d 1526, 1544 (Fed. Cir. 1994) (cited by *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 1373 (Fed. Cir. 1998)). Computer code recorded on magnetic media are electromagnetic signals which may be sensed by appropriate computer equipment and executed by appropriate computer processing units. So, too, is computer code conveyed by wireless means electromagnetic signals which may be sensed by appropriate computer equipment and executed by appropriate computer processing equipment. Wireless signals should be considered both “useful” and “tangible” under the test enunciated by *Alappat* and cited by *State Street Bank*. See *State Street Bank*, 149 F.3d at 1373 (citing *Alappat*, 33 F.3d at 1544).

⁵ Office Comm. p. 3.

component" and that "[w]hen functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and *will be statutory*."⁶ The Applicants submit that the data structures as recited in claims 24–25 and 29–33 are, indeed, recorded on a computer-readable medium and therefore have become "structurally and functionally interrelated to the medium" and therefore are statutory.⁷ Accordingly, the Applicants respectfully request the Examiner to withdraw the rejections of claims 12, 23–25, and 29–33 under 35 U.S.C. § 101.

The Examiner rejected claims 12, 24–28, and 34 under 35 U.S.C. § 103(a) as being unpatentable over Ouyang (Zan).⁸ The Examiner acknowledged that certain teachings were absent from the cited reference, but based the rejection on the absent claim elements being "well known in the computer art."⁹ The Applicants expressly request additional clarification. In particular, it is not clear from the Office Communication as to whether the rejection is based on Official Notice or on the Examiner's personal knowledge. Accordingly, Applicants request that the Examiner clarify the rejection and, in either event, support the rejection with a qualifying prior art reference which discloses that at the time of the invention, the cited elements were disclosed. In addition, Applicant respectfully requests that the Examiner provide the required motivation or suggestion to combine any such reference with any other art with which it is to be combined.

As noted, above, The Examiner rejected claim 24 under 35 U.S.C. § 103(a) as being unpatentable over Ouyang (Zan).¹⁰ It should further be noted that the Examiner, in the rejection of claim 24, characterized claim 24 as being a "method" being "practiced and stored in [a] computer-readable medium."¹¹ As noted in the discussion, above, claim 24 recites a data structure and not a method being practiced or recorded in a computer-readable medium.

⁶ United States Patent and Trademark Office, *Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility*, Annex IV (Nov. 22, 2005) (emphasis added). See also *In re Lowry*, 32 F.3d 1579, 1583–84 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium held statutory).

⁷ United States Patent and Trademark Office, *Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility*, Annex IV (Nov. 22, 2005). See also *In re Lowry*, 32 F.3d 1579, 1583–84 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium held statutory).

⁸ Office Comm. p. 8.

⁹ Office Comm. pp. 8–9.

¹⁰ Office Comm. p. 8.

¹¹ Office Comm. p. 8.

The Examiner rejected claim 1 under 35 U.S.C. § 102 as being anticipated by Ouyang.¹² Ouyang is a technical paper directed toward the use of delta compression to compress a collection of files by performing a sequence of pairwise delta compressions.¹³ The Applicants submit, however, that Ouyang fails to teach each and every element of the claim as recited. Ouyang fails, for example, to teach generating a list of prospective delta inputs, particularly when the list must include an entry for each unique source file in the plurality of source files.¹⁴ Instead, and to the contrary, Ouyang's disclosure merely indicates that a list of pairwise deltas is generated.¹⁵ Ouyang also fails to teach synthesizing a base file based upon package size¹⁶, or generating a delta from the base file and a source file¹⁷, or packaging the base file and the delta into a self-contained package.¹⁸

For the claim element regarding the "packaging [of] the base file and the delta into a self-contained package," the Examiner cites to Ouyang p. 2 col. 1, l. 41-44.¹⁹ However, the Applicants submit that Ouyang's disclosure reciting: "we only consider the problem of compressing and uncompressing an entire collection", clearly fails to teach or suggest the act of packaging a base file and a delta file into a self-contained package. Ouyang does discuss a particular compression analysis technique. However, Ouyang is completely silent as to packaging, let alone any description regarding whether the packaging is self-contained or not.²⁰ Because of the distinctions noted, above, the Applicants submit that claim 1 is, indeed, distinct from the teachings of Ouyang. Correspondingly, the Applicants respectfully request the rejection in view of Ouyang be withdrawn. Additionally, the Applicants submit that claim 1 is in condition for allowance and respectfully request the Examiner to issue its allowance.

The Examiner rejected claim 13 under 35 U.S.C. § 103 as being unpatentable over Ouyang (Zan) in view of Sliger.²¹ The Applicants submit that Ouyang and Sliger, both

¹² Office Comm. p. 4.

¹³ See Ouyang, *Abstract*.

¹⁴ It should be noted that "compression of a collection of n files;" Ouyang p. 2, § 1.1, l. 9-10; does not teach the particular methods described in the present invention. In contrast, Ouyang teaches "compression of a collection of n files, given a specific delta compressor, can be solved by finding an optimal branching . . ." *Id.*

¹⁵ Ouyang, p. 3 § 2.

¹⁶ See, generally, Ouyang.

¹⁷ See, generally, Ouyang.

¹⁸ See, generally, Ouyang.

¹⁹ Office Comm. p. 5.

²⁰ See, generally, Ouyang.

²¹ Office Comm. p. 13.

separately and in combination, fail to teach or suggest each and every element of the claim. Firstly, as noted above, Ouyang fails to teach or suggest a package containing a base file and a delta file. Sliger also fails to compensate for the inadequacies of Ouyang in this regard. In fact, it will be noted that Sliger actually teaches away from such a package containing both a base file and a delta file in that Sliger expressly states that a "user's copy of the old file [is] used to pre-initialize a decompressor to which the patch file is then input."²² In other words, Sliger teaches that a "patch file" is provided such that the patch file may be applied to a file *already existing* on a user's computer.²³ Accordingly, Ouyang and Sliger, both separately and in combination, fail to teach or suggest that the base file included in the package was synthesized based upon package size. Finally, Ouyang and Sliger, both separately and in combination, fail to teach or suggest synthesizing a target file by applying a delta included in the package to the at least one base file included in the package.

Claim 34 was rejected based upon the discussion of claim 1.²⁴ Based on the discussion, above, and in view of the amendments, the Applicants submit that claim 34 is in condition for allowance. Accordingly, the Applicants respectfully request the examiner to withdraw all rejections of claim 34.

In consideration of the foregoing, the Applicants submit that each of the independent claims are now in condition for allowance. Accordingly, the Applicants respectfully request the examiner to allow each of the independent claims, claims 1, 13, 24, and 34. Correspondingly, the dependent claims, based upon the allowable independent claims, are also in condition for allowance and the Applicants respectfully request the allowance of each claim. In view of the foregoing, Applicants respectfully submit that the other rejections to the claims are now moot and do not, therefore, need to be addressed individually at this time. It will be appreciated, however, that this should not be construed as Applicant acquiescing to any of the purported teachings or assertions made in the last action regarding the cited art or the pending application, including any official notice.²⁵

²² Sliger, *Abstract*; see also, generally, Sliger.

²³ *Id.* It may also be noted that applying a so-called patch file to a file already existing on a computer is a technique discussed within the Background section of the present invention and is a technique whose shortcomings are overcome by the innovation of the present invention. See Specification ¶ 7.

²⁴ Office Comm. p. 9.

²⁵ Instead, Applicants reserve the right to challenge any of the purported teachings or assertions made in the last action at any appropriate time in the future, should the need arise. Furthermore, as suggested above, and to the

In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney by telephone at (801)533-9800.

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Respectfully submitted,



RICK D. NYDEGGER
Registration No. 28,651
JENS C. JENKINS
Registration No. 44,803
COLBY C. NUTTALL
Registration No. 58,146
Attorneys for Applicant
Customer No. 47973
801.533.9800

RDN:JCJ:TMB

extent that the Examiner has relied on any Official Notice, explicitly or implicitly, Applicants specifically request that the Examiner provide references supporting the teachings officially noticed, as well as the required motivation or suggestion to combine the relied upon notice with the other art of record.